



Improving Immunization Rates

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Today's Topics

- Burden of vaccine-preventable disease
- Immunization coverage rate data
- Common barriers to improved immunization rates
- What works? Effective methods to overcome barriers
- Vaccine financing issues
- Indiana Immunization Strategic Plan



Annual Impact of Vaccine-Preventable Disease in the U.S.

- Influenza – 36,000 deaths, \$10 billion in costs
- Pertussis – Estimated 1-3 million cases, highest rates in infants (70/100,000) but more cases in adol/adults
- Pneumococcal infections – 41,000+ cases and 5,000 deaths in 2006
- HPV – half a million new infections, highest rates in 20-29 year-old women
- Hepatitis B – 5,000 deaths from liver disease, \$700 million in costs

Source: National Foundation for Infectious Diseases:
Saving Lives: Integrating Vaccines for Adults into Routine Care, 2008

Vaccine Series Coverage Rate Data

4 DTap: 3 polio: 1 MMR: 3 Hib: 3 Hep B: 1 varicella
(+4 pneumoccal)

	4:3:1:3:3:1 series	4:3:1:3:3:1:4 series
Indiana	75.5%	70.3%
United States	76.1%	68.4%
<i>NIS data for 2008 (MMWR, 8/28/2009)</i>		

More Vaccine Coverage Rate Data

NIS data for 2008 (MMWR, 8/28/2009)

	Hep B birth dose	Hep A 2 doses	Hib 3 doses	PCV 7 4 doses
Indiana	64.5%	42.1%	89.3%	79.5%
U.S.	55.3%	40.4%	90.9%	80.1%



Barriers to Immunization

- **For Patients**
- Limited access to health care
- Misinformation or lack of awareness
- Anti-vaccine movement
- Busy lives – don't remember when vaccines are needed
- Insurance doesn't cover vaccines
- Adult vaccines – lack of infrastructure



Barriers to Immunization

- **For health care providers**
- Incomplete or outdated information
- Cost of stocking vaccines
- Insufficient reimbursement for vaccination
- “Hassle factor” issues
- Insufficient time to educate patients about importance of vaccination



Immunization Best Practices

MMWR 1999; 48 (RR-8):1-15

- Focused on adolescent and adult populations
- Multicomponent interventions that include education – strongly recommended
- Reducing out-of-pocket costs – strongly recommended
- Provider education only – insufficient evidence
- Vaccination requirements for schools – recommended
- Community-wide education only – insufficient evidence
- Vaccination programs in schools - recommended



Effective Strategies to Raise Immunization Rates

- Reminder/Recall
- Standing Orders
- Education of Health Care Providers
- Performance Feedback
- Expand Access to Care
- Remove Financial Barriers
- Education of Consumers (multicomponent)



Reminder/Recall

- Reminders
 - Mail – electronic or postal service
 - Telephone – automated or personalized
- Recall patients who missed their appointment



Standing Orders

- A set of medical orders that do not depend on individual physicians
- Considerations
 - Postpartum for Tdap vaccine
 - Hepatitis B birth dose
 - Influenza vaccine annually
- Often requires collaboration and policy changes
- Use questionnaire for screening re medical issues that would exclude from vaccination



Education of Health Care Providers

- Immunization A To Z by ISDH
- Websites: (also see last slide in this presentation)
 - Immunization Action Coalition (IAC)
- CDC –Vaccines section
- Vaccinate Indiana/Indiana Immunization Coalition
 - National Foundation for Infectious Diseases (NFID)
 - Children's Hospital of Philadelphia (CHOP)



Education of Health Care Providers

- Professional organizations – AAP/INAAP, AAFP
- Educational program for nursing staff
 - Public health nurses
 - School nurses
 - Medical offices/community health centers
 - Hospitals
- Vaccine manufacturer programs



Performance Feedback

- “How am I doing?”
- CASA-AFIX assessments
- CHIRP = Children and Hoosiers Immunization Registry Program =Indiana’s immunization registry
- HEDIS assessments
- Pay for performance
- Quality review methods



Expanding Access to Care

- Policy changes
- Health care reform legislation
- Emphasis on preventive care, including immunizations
- Increased support for primary care



Expanding Access in Health Care Settings – the Medical Home

- Evening and weekend hours available
- Easy appointment scheduling
- Short waiting times
- “Nurse-only” visits for immunizations
- Seasonal/expanded hours/clinics for influenza vaccine
- Assess immunization coverage at every visit



Expanding Access to Care

- Offer on-site vaccinations at workplace
- Collaboration with nursing schools
- Collaboration with hospitals
- Pharmacies/retail clinics
- Required immunizations for employees at all health care delivery sites
- Sexually transmitted disease clinics



Expanding Access – Non-Traditional Settings

- Schools
 - Influenza immunization
 - Tdap/meningococcal/varicella re school entry requirements for 6th-12th graders in 2010
 - Collaboration with public health and local providers
- Child care centers
- Public venues – health fairs, airports, concerts, other mass gatherings
- Home visits
- Use CHIRP registry to share immunization data



Vaccine Financing Basics

- Vaccines for Children (VFC) – entitlement program
- Act 317 – federal funding, but not adequate to pay for all recommended vaccines
- Private purchase by providers
- Private sector immunizes 84% of all children



Vaccine Financing/Reimbursement

- Most medical offices do NOT make a profit from immunizations
- Over 50% of pediatric private practices broke even or lost \$ from vaccinating (GA)
- 32% of pediatricians/family physicians felt reimbursement for vaccine purchases and/or administration is inadequate
- Overhead costs for vaccinating range from 11\$ -28\$ per vaccine dose



Patient Education

- Risks of vaccine-preventable diseases
- Safety of vaccines
- Address myths/misinformation
- Expand websites
- National Vaccine Information Center (NVIC) is NOT an acceptable source of information – anti-vaccines



Indiana Strategic Plan

- Indiana Immunization Task Force developed this strategic plan to improve immunization rates in 2009
- A project of the Indiana Chapter of AAP and the Indiana Immunization Coalition
- Vision: To increase awareness of the importance of immunizations for Hoosiers
- Mission: To decrease vaccine-preventable-diseases by increasing Hoosier immunization coverage rates through education, advocacy and partnership
- Has measurable outcomes for many objectives



Indiana Strategic Plan

- 1) Increase access to immunizations
- 2) Improve immunization coverage rates to 80%
 - For 2-year-old vaccine series by 2011
 - For teens for Tdap/meningococcal vaccines by 12/11
 - For seniors for current flu vaccine and pneumococcal vaccine by 12/11
 - For 6-23 month-olds for flu vaccine by 12/11
- 3) Reduce the cost to pediatric providers of financing vaccines



Indiana Strategic Plan (continued)

- 4) Expand immunization education
 - On the burden of vaccine-preventable disease
 - On the importance of up-to-date vaccination and methods to improve coverage rates
 - Vaccinate Indiana website developed in Sept. 2009
- 5) Expand the use of CHIRP, the state immunization registry



Collaboration & Outreach

- Indiana Immunization Coalition
- Indiana Adult Immunization Coalition
- Private/public partnerships
- Public health nurse and school nurse networking
- Long term care nurse networking
- Consider newer strategies for communication:
 - E-mail, Facebook, Twitter, new websites
 - Pertussis/Tdap vaccine music video through INAAP



Resources/websites

- IAC – www.immunize.org; www.vaccineinformation.org
- CDC – www.cdc.gov/vaccines
- ISDH – www.in.gov/isdh/17094.htm
- IIC/Vaccinate Indiana – www.inimcoalition.org & www.vaccinateindiana.org
- IAIC – www.immunizeinadults.org
- INAAP/national AAP – www.inaap.org & www.aap.org/immunization
- CHOP – www.chop.edu/service/vaccine-education/home.html
- Every Child by Two – www.ecbt.org & www.vaccinateyourbaby.org



More Resources/Websites

- Society for Adolescent Medicine/NBA/WNBA – www.vaccinesfor teens.net
- National Network for Immunization Information – www.immunizationinfo.org
- National Foundation for Infectious Diseases – www.nfid.org (see Fact Sheets)
- Parents of Kids with Infectious Diseases – www.pkids.org

